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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,335	10/07/2003	Nobushige Aoki	03500.017642	2654

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EXAMINER
HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
2182	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/679,335	AOKI ET AL.
	Examiner	Art Unit	
	Aurangzeb Hassan	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5 and 20-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5 and 20-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 28 is objected to because of the following informalities: line 2 recites

"causeing".

2.   Claims 22 and 29 are objected to because the sentence structure makes it

unclear as to whether the printer or the host computer is the recipient of the interruption

event. For the purpose of examination the claim will be read as the host computer

receiving the interruption event from the printer.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 5, 20 – 22 and 25 – 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kitamura et al. (US Patent Number 6,947,158 hereinafter "Kitamura")

in view of Narusawa et al. (US Publication Number 2003/0085942 hereinafter

"Narusawa").

5.   As per claims 1 and 25, Kitamura teaches a print system and method, in which a

printer (printer 6, figure 1) and a host computer (CPU 1, figure 1), each of which

includes a communication interface for transmitting and receiving information in real

time (interconnected through a bus 8 for data transfer in real-time, figure 1); are

connected to each other to communicated with each other, comprising:

        an operation panel for receiving an instruction from a user (element 34, figure 3);

        the host computer comprising:

        receiving means for receiving the print setting information from the printer;

        an interruption controller for detecting the interruption even notified by the printer

(printer driver 21, figure 2); and

        display control means for causing a display apparatus to effect a print preview

display, in response to detecting the interruption event by the interruption controller

(based on input interruption from the system the preview is displayed, figure 3, column

4, lines 16 – 35).

        Kitamura does not explicitly disclose the detailed functionality of the printer

interface.

        Narusawa teaches a print system wherein the printer comprises:

        an operation panel for receiving an instruction from a user (user interface, figure

5);

        an operation panel controller for, in response to receiving the instruction with the

operation panel, generating print setting information notifying the host computer of an

interruption event (interrupt generation, paragraph [0083] in communication with

computer [0085] and the capabilities of the computer are described in the camera figure

12), and transmitting the print setting information (paragraph [0086]); and

a printer engine for performing printing (print engine 28, figure 2).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to pair and modify Kitamura with a printer teaching of Narusawa

taught above. One of ordinary skill would be motivated to make such modification in

order to effectively provide flexibility in a user interface and readily selecting a desired

print-condition file from a memory card with a plurality of print-condition files stored

therein (paragraph [0010]).

The Examiner makes a note to the Applicant that Narusawa teaches an interrupt

controller for detecting print settings on the printer along with a display which responds

with a preview of the settings established by the user in the embodiment of a digital

camera as seen in figure 12. Narusawa states that a computer, mobile telephone and

portable remote terminals also have all of the same functionality as described for the

digital camera (paragraphs [0085 & 0126]).

6.   Kitamura modified by the teachings of Narusawa as applied in claim 1 above as

per claims 5 and 26, Narusawa teaches a print system and method, wherein the printer

includes a direct print controller for effecting printing not through the computer so that

printing is executable with the printer alone (stand-alone printer, paragraph [0078]).

7.   As per claims 20 and 27, Narusawa teaches a print system and method, wherein the host computer further comprises generating means for receiving image data read out from a memory card attachable to the printer (memory card 2 is attachable to card slot 13, figure 1), and generating print data corresponding to the print setting information, from the received image data (paragraph [0118]).

8.   As per claims 21 and 28, Narusawa teaches a print system and method, wherein at every interruption event, the display control means causes the display apparatus to effect the print preview display in which the print setting information changed at every interruption event is reflected (user pushes various buttons and the selected print-condition setting file is effected, figure 14, paragraph [0118]).

9.   As per claims 22 and 29, Narusawa teaches a print system and method, wherein the printer starts printing on the basis of the print data received from the host computer, in response to receiving the interruption event corresponding to an operation of a print start button disposed on the operational panel (paragraphs [0120-0121]).

10.   Claims 23, 24, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narusawa.

11.   As per claims 23 and 30, Narusawa teaches a print system and method, in which a printer (figure 1) and a host (element 3, figure 12), each of which includes a

communication interface for transmitting and receiving information in real time (USB

figure 12), are connected to each other to communicate with each other, the host

comprising:

receiving means for receiving image data read out from a memory card

attachable to the printer (camera reads memory card, paragraph [0118]);

detecting means for detecting an interruption event transmitted from the printer to

the host (interrupt generation, paragraph [0083] in communication with host [0085]), in

accordance with an instruction from a button disposed on an operation panel of the

printer (figure 5); and

print preview display control means for (element 139, figure 13), in response to

the interruption event, obtaining a print setting set with the operation panel (setting from

panel save in memory card, paragraph [0118]) and controlling to cause a display

apparatus of the host to effect a print preview display in which the print setting is

reflected (figure 15).

Narusawa does not explicitly disclose the functionality of the host is comprised in

the host computer, however does say that the host can be a host computer

interchangeably with full functionality (paragraphs [0085 & 0126]).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to utilize the host computer environment or the digital camera

environment interchangeably as taught by Narusawa (paragraphs [0085 & 0126]). One

of ordinary skill would be motivated to utilize such environment to accommodate a user-

friendly interface (paragraph [0009]).

12.   As per claims 24 and 31, Narusawa teaches a print system and method, wherein

the print preview display control means updates the print preview display every time the

print setting is changed in accordance with the operation of the operation panel

(selected print condition is effected, paragraphs [0118-0119]).

Response to Arguments

13.   Applicant's arguments with respect to claim 1 have been considered but are moot

in view of the new ground(s) of rejection.

14.   Furthermore, in order for the Applicant to better understand the current rejection

the Examiner has provided an explanation of the prior art with respect to the Applicant's

arguments.

The Applicant argues:

1) Kitamura and Narusawa, either alone or in combination fail to disclose a

printer and a host computer, each of which includes a communication interface for

transmitting and receiving information in real time.

2) The print system of Claim 1 teaches the transmitted print setting information is

reflected in the print preview display by the host computer in real time. Furthermore

Kitamura discloses a preview display of print data generated by a print driver not direct

communication.

3) Kitamura is entirely silent on functionality of the printer and there fails to teach that the computer system generates an interrupt event in response to operation of an operation panel of the printer as featured in amended independent Claim 1.

15.   The Examiner respectfully disagrees and elaborates for argument 1. The Applicant argues newly amended claim limitations, which have been rejected above in the real-time interface via bus/USB architecture as seen in the rejection of claims 1 and 23. Furthermore real-time operations are those in which the machine's activities match the human perception of time or those in which computer operations proceed at the same rate as a physical or external process and the Applicant fails to define "real-time" in the specification with respect to timing to distinguish from the "real-time" speed of USB/bus communication of Kitamura.

16.   The Examiner respectfully disagrees and elaborates for argument 2. The Applicant argues limitations that are not necessitated by the claims, it is noted that the features upon which applicant relies (i.e., real time print preview display by the host, directly from the printer to the host without intervening processing) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore the term real-time has not been definitively expressed in the specification as noted above for argument 1.

17.   The Examiner respectfully disagrees and elaborates for argument 3. In the

Office Action dated 9/14/2006 for the rejection of Claim 1, the Examiner had cited that

Kitamura does not disclose all of the functionality of the printer. This citation was

inadvertently interpreted as that Kitamura is "entirely silent on functionality". The

Examiner notes that Kitamura taught some of the functionality and the Examiner relied

upon Narusawa for the remaining operation for the printer. In response to applicant's

arguments against the references individually, one cannot show nonobviousness by

attacking references individually where the rejections are based on combinations of

references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck &

Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The newly amended claims are

rejected as set forth in the current office action.

Conclusion

19.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. US Publication Number 2005/0275872 teaches a printer with a

memory card reader integrated on the surface of the printer further coupled to a

computer. The system allows for data enhancement of images stored on the card and

the Examiner further cites the functionality of an operating system and the print preview

functionality inherited therein. Operating systems further include drivers to handle and

process interrupts from devices that are connected to the computer. The Examiner also

makes US Publication Number 2002/0054350 of record as pertinent prior art as it

teaches a printer with memory card and stand-alone capabilities as well as functionality

of being coupled with a computer. As well as copending application US Publication

Number 2004/0080778 which teaches all of the components of the current application

with the variation of the operational panel being external of the printer.

20.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

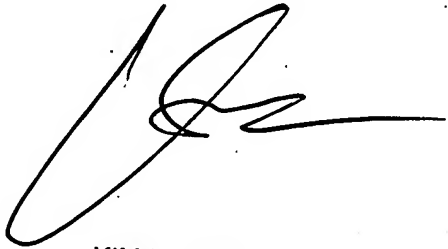than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aurangzeb Hassan whose telephone number is

(571)272-8625. The examiner can normally be reached on Monday - Friday 9 AM to

5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Huynh can be reached on (571)272-4147. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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AH

KIM HUYNH
SUPERVISORY PATENT EXAMINER
3/5/•7